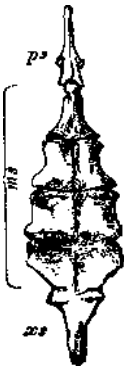

brates, the sternum of the Mammalia consists of a series of pieces as many as eight or nine or even sixteen in *Ckoloepus,* of whiel the first is called the manubrium sterni, and the last the eiisiforiT, cartilage, xiphisternum, or xiphoid process. The latter often remains largely cartilaginous throughout life; in fact this ig generally but not universally the case with that part of the breastbone. The most extraordinary modification of the xiphoid process is seen in the African species of the genus *Manis,* where it diverges into two long cartilages, which run back to the pelvis and then, curving round, run forwards and fuse together in the middle line anteriorly. These processes serve for the attachment of certain tongue-muscles. They were looked upon by Professor Parker as the equivalents of the " abdominal ribs " of reptiles elsewhere non-existent among mammals. This view is not, however, usually held. The matiubrhmi sterni is often keeled in the middle line below; this is so with the Bats, which thus approach the birds, and probably for the same reason, *i.e.* the need of an enlarged origin for the pectoral muscle, which is concerned in the movements of flight. In many forms this part of the sternum is much broader than the pieces which follow; this is so of the Pig *(Sws scrofa).* In the Pig the precise reverse is seen the manubrium being narrower than the rest of the sternal pieces It will be noticed, however, that in this and similar cases there are no clavicles. Bibs are attached between the successive pieces of the sternum.

FIG. 19.—sternum of the Viscacha. Mesosteraum; £s presterauni • a», xipliisternum. boiieleta OoteSo ylowerts

When the sternum is reduced, as it is in the Cetacea and in the Sirenia, it is the intermediate part of the series of bones which becomes abbreviated or vanishes. The Sperm "Whale has only a manubrium sterni and a following piece belonging to the mesosternuni. *It* is fair to say that the xiphoid process and the rest of the sternum have disappeared, since among the Toothed Whales a progressive shortening of the sternum can be seen. In the Whalebone Whales the sternum is still further reduced ; the manubrium is alone left, and to it are attached but a single pair of ribs. In *JSalaena,* however, a rudimentary